



[7590-01-P]

NUCLEAR REGULATORY COMMISSION

[Docket No. 50-320; NRC-2013-0065]

GPU Nuclear Inc., Three Mile Island Nuclear Power Station, Unit 2,

Exemption from Certain Security Requirements

AGENCY: Nuclear Regulatory Commission.

ACTION: Exemption.

FOR FURTHER INFORMATION CONTACT: John B. Hickman, Office of Federal and State Materials and Environmental Management Programs, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-415-3017; e-mail: John.Hickman@nrc.gov.

SUPPLEMENTARY INFORMATION:

1.0 BACKGROUND

GPU Nuclear, Inc. (GPUN, the licensee) is the licensee and holder of Facility Operating License No. DPR-73 issued for Three Mile Island Nuclear Power Station (TMI), Unit 2, located in Dauphin County, Pennsylvania. TMI Unit 2 is a permanently shutdown nuclear reactor facility. TMI Unit 2 was a pressurized water reactor that was operated from December 1978 until March 28, 1979, when the unit experienced an accident which resulted in severe damage to the reactor core.

As a result of this accident, small quantities of core debris and fission products were transported through the Reactor Coolant System and the reactor building during the accident. In addition, a small quantity of core debris was transported to the auxiliary and fuel handling buildings. Further spread of the debris also occurred as part of the post-accident water processing cleanup activities.

TMI Unit 2 has been placed in a safe, inherently stable condition suitable for long-term management. Fuel and core material was removed in the defueling and has been shipped off

site. The removed fuel is currently in storage at Idaho National and Environmental Engineering Laboratory (INEEL), and the U.S. Department of Energy has taken title and possession of the fuel.

Substantial contaminated areas still exist at the facility, as well as trace quantities of spent nuclear fuel (SNF). The quantity of fuel remaining at TMI Unit 2 is a small fraction of the initial fuel load; approximately 99% was successfully removed in the defueling. Additionally, large quantities of radioactive fission products were released into various systems and structures. Most of this radioactivity was removed as part of the waste processing activities during the TMI Unit 2 Clean-up Program. Significant quantities of radioactive fission products were removed from the reactor coolant system. Most of the residual fuel remaining is fixed in the form of fine and granular debris that is inaccessible to defueling, tightly adherent surface deposits not readily removable by available dynamic defueling techniques, and resolidified material that is either tightly adherent to the reactor vessel components or inaccessible to defueling. There is no physical inventory requirement for special nuclear material (SNM) quantities at TMI Unit 2 during post-defueled monitored storage because the remaining materials are of low enrichment, highly radioactive and relatively inaccessible.

Part 73 of Title 10 of the *Code of Federal Regulations* (10 CFR), "Physical Protection of Plants and Materials" "prescribes requirements for the establishment and maintenance of a physical protection system which will have capabilities for the protection of special nuclear material at fixed sites and in transit and of plants in which special nuclear material is used." Section 73.55(b)(1), entitled "Requirements for physical protection of licensed activities in nuclear power reactors against radiological sabotage," states, "The licensee shall establish and maintain a physical protection program, to include a security organization, which will have as its objective to provide high assurance that activities involving special nuclear material are not

inimical to the common defense and security and do not constitute an unreasonable risk to the public health and safety.”

The Power Reactor Security Rule, which applies to all 10 CFR Part 50 licensees, was revised on March 27, 2009, with compliance required by March 31, 2010 (74 FR 13926). The NRC held a webinar on July 20, 2010, to provide clarification on the applicability of the power reactor security regulations to 10 CFR Part 50 licensees undergoing decommissioning or 10 CFR Part 50 licensees that have only a general licensed Independent Spent Fuel Storage Installation (ISFSI). By letter dated August 2, 2010, the NRC informed GPUN of the applicability of the revised rule and stated that GPUN should evaluate the applicability of the regulation to its facility and either make appropriate changes or request an exemption (ML102080269).

2.0 REQUEST/ACTION

By letter dated November 22, 2010 (ML110730375), and supplemented by e-mail dated February 8, 2013 (ML13044A053), GPUN responded to the NRC’s letter and requested exemptions from certain security requirements in 10 CFR 73.55.

3.0 DISCUSSION

Pursuant to 10 CFR 73.5, “Specific Exemptions,” the Commission may, upon application of any interested person or upon its own initiative, grant such exemptions from the requirements in 10 CFR Part 73 as it determines are authorized by law and will not endanger life or property or the common defense and security, and are otherwise in the public interest.

The purpose of the security requirements of 10 CFR Part 73, as applicable to a 10 CFR Part 50 licensed facility, is to prescribe requirements for a facility that possesses and utilizes SNM. The fuel removed from TMI Unit 2 is currently in storage at Idaho National and Environmental Engineering Laboratory, and the U.S. Department of Energy has taken title and possession of the fuel. With the completion of the fuel transfer, there is no longer any SNM located within TMI Unit 2 other than that contained in plant systems as residual contamination.

The remaining radioactive material is in a form that does not pose a risk of removal (i.e., an intact reactor pressure vessel and contaminated structures) and is well dispersed and is not easily aggregated. With the removal of the fuel containing SNM, the potential for radiological sabotage or diversion of SNM at the 10 CFR Part 50 licensed site was eliminated.

For clarity, the staff grouped each GPUN exemption request into one of two categories:

(1) Exemption denied because the regulations are not applicable to the facility; and

(2) Exemption granted.

3.1 EXEMPTION DENIED BECAUSE THE REGULATIONS ARE NOT APPLICABLE TO THE FACILITY

The licensee has requested exemptions from the cyber security and protection of digital assets regulations as delineated in 10 CFR 73.55(a)(1), 73.55(b)(8), 73.55(b)(9)(ii)(C), 73.55(c)(1)(i), 73.55(c)(6), and 73.55(m)(2). Cyber Security under 10 CFR 73.54 is applicable to licensees currently “licensed to operate a nuclear power plant under Part 50.” Since TMI Unit 2 is licensed to possess but not operate a nuclear power plant, requirements under 10 CFR 73.54 do not apply. Consequently, requirements under 10 CFR 73.55 that reference cyber security or protection of digital assets are not applicable and the exemptions are denied. The licensee also requested an exemption from 10 CFR 73.55(f)(2). In 10 CFR 73.55(f)(2) also specifies cyber security requirements that are not applicable to TMI Unit 2, therefore that exemption is denied.

3.2 EXEMPTION GRANTED

The licensee has requested exemptions from the target sets requirements in 10 CFR 73.55(b)(4), 10 CFR 73.55(f)(1), 10 CFR 73.55(f)(3), and 10 CFR 73.55(f)(4). Due to the status of TMI Unit 2, permanently shutdown with virtually all fuel removed from the facility, there is no longer any equipment or facilities that need to be protected. Therefore, there are no designated Target Sets identified for TMI Unit 2. Therefore, regulations which refer to Target Sets are not necessary for TMI Unit 2 and the requested exemptions are granted.

The licensee has requested an exemption from the bullet-resisting-physical barriers requirements in 10 CFR 73.55(e)(5) with respect to the main control room (MCR). Due to the status of TMI Unit 2, permanently shutdown with virtually all fuel removed from the facility, the TMI Unit 2 MCR has no operational or safety function and is no longer continuously manned or classified as a vital area. With the TMI Unit 2 MCR no longer performing the original design safety function, there is no need for it to be protected by bullet resisting barriers. Therefore, the requested exemption is granted.

The licensee has requested exemption from the vital areas requirements in 10 CFR 73.55(e)(9)(v), for the reactor control room, (e)(9)(v)(A), and the spent fuel pool, (e)(9)(v)(B). Due to the permanently defueled and shutdown status of the facility, the TMI Unit 2 MCR is no longer a functional facility for controlling reactivity or safety related systems. Because the MCR no longer performing any vital control or safety function it does not need to be considered a vital area from a security perspective. The TMI Unit 2 spent fuel pool (SFP) has been drained and decontaminated and no longer serves as a spent fuel pool. Therefore, the TMI Unit 2 SFP is not a vital security area with respect to TMI Unit 2. Therefore, the requested exemptions are granted.

The licensee has requested an exemption from the waterways requirements at 10 CFR 73.55(e)(10)(ii)(A). By e-mail dated February 8, 2013, the licensee clarified that their original request for exemption from 10 CFR 73.55(e)(11)(A) was a typographical error and that they intended to request an exemption from 10 CFR 73.55(e)(10)(ii)(A). Due to the status of TMI Unit 2, permanently shutdown with virtually all fuel removed from the facility, there is no longer any equipment or facilities that need to be protected. The Unit 2 River Water Intake Structure is no longer considered a vital area and all equipment previously located within the intake structure has been removed and piping leading to the Protected Area has been filled in with concrete and stone. Based on the reduced need for security at the permanently defueled and

shutdown facility, there is no need for waterway security and no need to identify areas from which a waterborne vehicle must be restricted. Therefore, the exemption is granted.

The licensee has requested exemption from the requirements for communication in 10 CFR 73.55(j)(4), (j)(4)(ii), and (n)(5), specifically, for communications with the MCR and testing communications with the MCR and local law enforcement agencies (LLEAs). Due to the permanently defueled and shutdown status of the facility the TMI Unit 2 MCR is no longer continuously manned or functional from a security perspective. Since the MCR no longer performs any vital control or safety function there is no need to maintain communications capability with the MCR. The removal of the SNM from the site obviates the need for communications between the alarm stations and the MCR or LLEAs and the testing of such communications systems. Therefore, the requested exemptions are granted.

The licensee has requested an exemption from the safeguards contingency plan requirement in 10 CFR 73.55(c)(5). With the SNM removed from the TMI Unit 2 site, the protection of the SNM is no longer required of Unit 2. Because there is no SNM to protect, there is no need for the physical protection requirements of 10 CFR 73.55 (c)(5) which requires a safeguards contingency plan. Therefore the exemption is granted.

Therefore, the continued application of the previously discussed 10 CFR Part 73 requirements to TMI Unit 2, are not necessary to achieve the underlying purpose of the rule. Additionally, with the removal of the spent nuclear fuel from the site, the radioactive materials remaining on the 10 CFR Part 50 licensed site would be comparable to a source and byproduct licensee that uses general industrial security (i.e., locks and barriers) to protect the public health and safety. As stated in the regulations, Part 73, "...prescribes requirements for the establishment and maintenance of a physical protection system which will have capabilities for the protection of special nuclear material at fixed sites and in transit and of plants in which special nuclear material is used." The possession and responsibility for the security of the SNM

was transferred to INEEL and is no longer the responsibility of the licensee. Therefore, protection of the SNM is no longer a requirement of the licensee's 10 CFR Part 50 license.

With no SNM to protect, there is no need for a cyber security plan, target sets, bullet resisting physical barriers at the MCR, vital area requirements for the MCR or SFP, waterway security, continuous communications with the MCR or LLEA, or a safeguards contingency plan for the TMI Unit 2, 10 CFR Part 50 licensed site.

4.0 CONCLUSION

Accordingly, the Commission has determined that, pursuant to 10 CFR 73.5, an exemption is authorized by law, will not endanger life or property or the common defense and security, and is otherwise in the public interest because the security requirements for the spent fuel containing SNM are no longer the responsibility of the licensee. Therefore, the Commission hereby grants GPU Nuclear, Inc., an exemption from the physical protection requirements of 10 CFR 73.55 (b)(4), (f)(1), (f)(3), (f)(4), (e)(5), (e)(9)(v)(A), (e)(9)(v)(B), (e)(10)(ii)(A), (j)(4)(ii), (n)(5), and (c)(5) at TMI Unit 2.

This licensing action meets the categorical exclusion provision in 10 CFR Part 51.22(c)(25)(vi)(F). This action is an exemption from the requirements of the Commission's regulations. For the reasons detailed above in the staff's analysis of the request, (i) the exemption involves no significant hazards consideration; (ii) there is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite; (iii) there is no significant increase in individual or cumulative occupational radiation exposure; (iv) there is no significant construction impact; (v) there is no significant increase in the potential for or consequences from radiological accidents. The requirements from which an exemption is sought involve safeguard plans and is one of the categories of exemptions identified in 10 CFR 51.22(c)(25)(vi)(F) as appropriate for application of this categorical exclusion.

Therefore, this action does not require either an environmental assessment or an environmental impact statement.

These exemptions are effective immediately.

Dated at Rockville, Maryland, this 2nd day of April 2013.

FOR THE NUCLEAR REGULATORY COMMISSION

Larry W. Camper, Director
Division of Waste Management
and Environmental Protection
Office of Federal and State Materials
and Environmental Management Programs

[FR Doc. 2013-08704 Filed 04/12/2013 at 8:45 am; Publication Date: 04/15/2013]